CIA Crest Database and Geolocation

This blog post was first posted to the International Centre for Security Analysis blog on the 31st January 2017.

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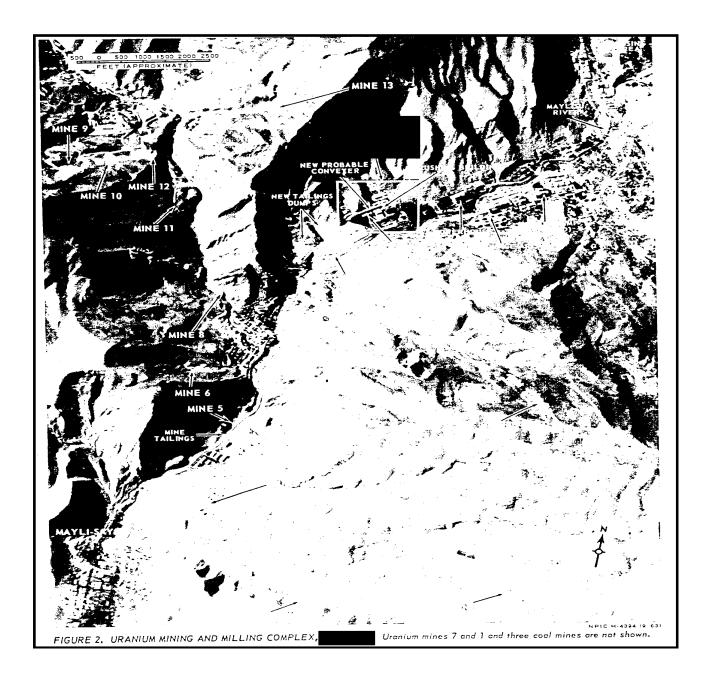
NPIC/R-217/63

URANIUM MINING AND MILLING COMPLEX, MAYLI-SAY, USSR

Recently, to the delight of the OSINT community, the CIA updated its CREST digital library with the addition of upwards of 800,000 new files. While much of the credit for the agency's initiative is due to the perseverance of journalist Mike Best (perhaps we should also spare a thought for the CIA employees who were likely on 'scan and document' duty in the basement for their first few years of service), granting digital access to the 13 million pages is a welcomed act of compliance and transparency to researchers and citizens alike. Many of the documents made available date from the 50s through to the 80s and some contain guides on opening sealed letters and invisible writing, as well as reports stating the 'total lack of evidence' of UFOs.

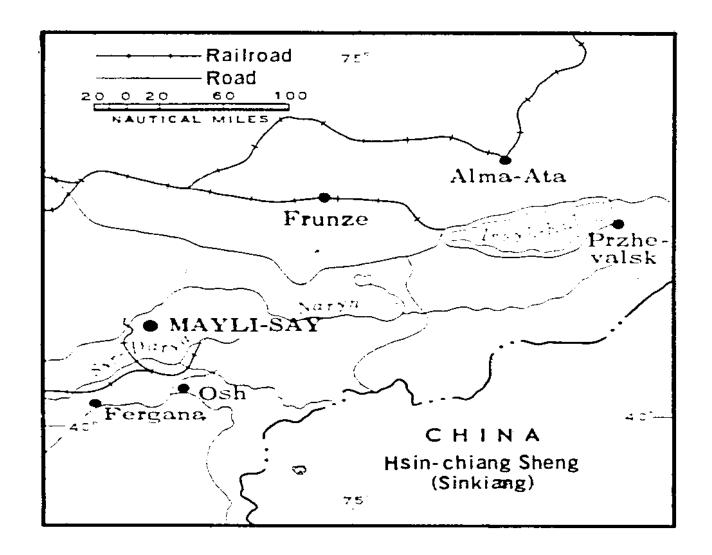
Admittedly, it is quite fun to rummage through papers with titles worthy of an X-files episode; however, we endeavoured to find how such newly available information might be relevant to non-proliferation research today. This post will serve both to illustrate the type of valuable information the CREST database can offer, and to demonstrate some useful geolocation techniques.

Our task? To locate former uranium mines in Kyrgyzstan. After a simple search in the CREST database using the key words 'Kyrgyzstan' and 'Uranium mine', we find a document named 'Uranium Mining and Milling Complex, Mali-Say, USSR', which looks to have been produced in 1961. The document provides what appears to be a grainy satellite image with potential uranium mines identified – just what we're looking for.

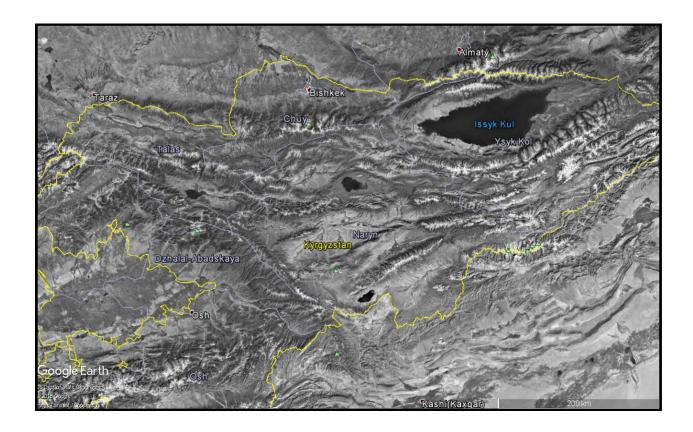


Where is Mayli-Say, though? The document does provide rough 8-digit coordinates, and while they get us into the right ballpark, we'll ignore those for the sake of geolocating.

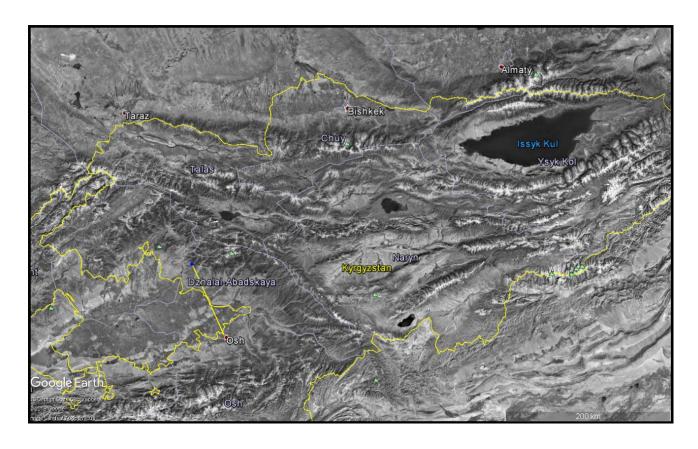
The document itself provides a simple map of the concerned region, along with neighbouring cities of Mayli-Say.



From the map we see that Mayli-Say is located near the border with China, and the city of Frunzo and Alma-Ata. A quick look at Kyrgyzstan confirms that we're in the right area – although some city names have changed, like Frunzo to Bishkek, since the document was produced.



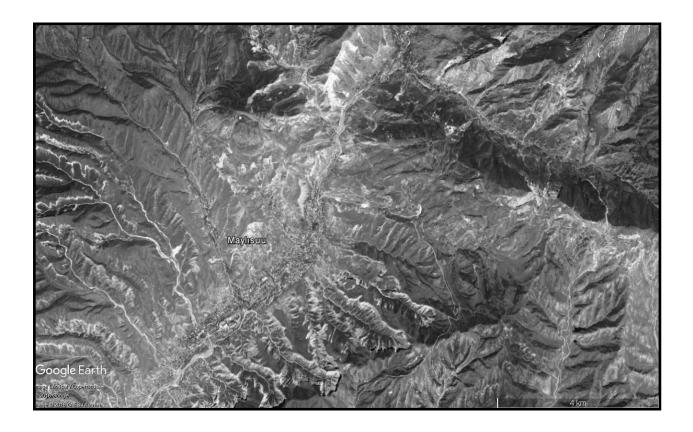
We still haven't located Mayli-Say from the google earth image. On the document's map, however, we do see the city Osh, and according to the scale and an eyeball estimate, Mayli-Say appears to be about 50 nautical miles north west of Osh. Luckily google earth has a ruler with nautical miles.



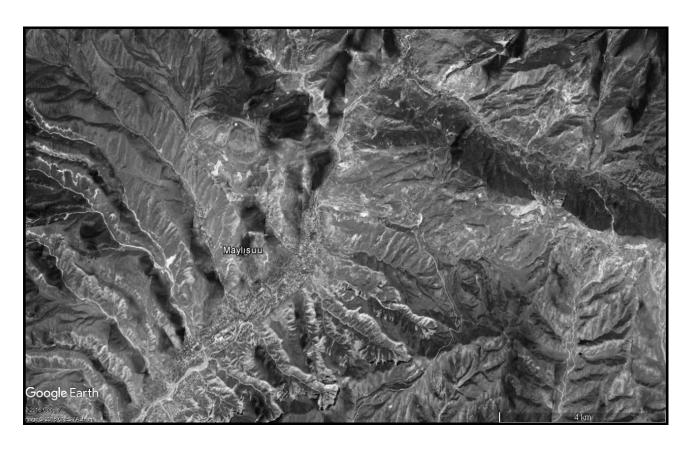
We don't see much at an altitude of 700km, so we'll zoom in on the region and see if the elusive Mayli-Say is in the area.



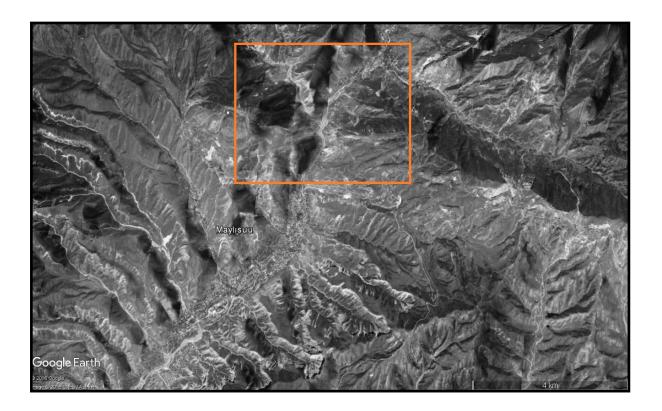
While we don't have a Mayli-Say, we do have a Maylisuu (the multiple spellings of foreign places can be *very* frustrating when geolocating). If we confirm with the basic coordinates given in the document (42-15N 72-28E), we are in the correct general area. Now, where are these mines?



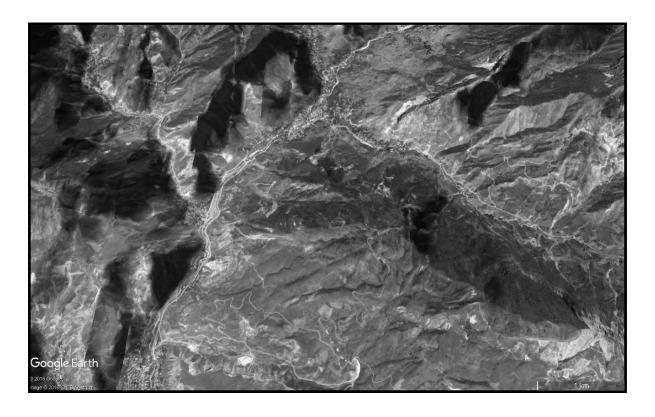
Zooming into Maylisuu, we see a small town in a valley surrounded by mountains. If we're going to locate those mines from the grainy photo, we're going to need some help. The photo appears to have been taken late in the day, with the sun to the west. Why don't we do the same in google earth?

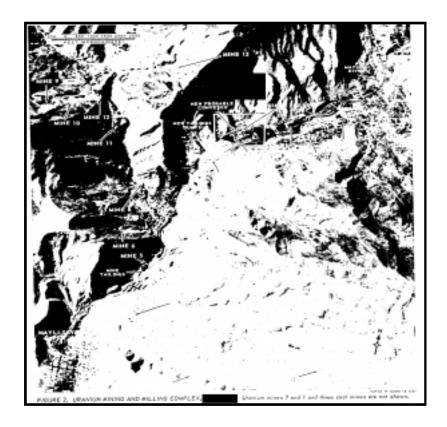


Searching can be quite tedious, however, using the sun tool in google earth reveals the topographic nature of the area in more detail, and more importantly, casts the same shadows as our CIA image. If you look closely, the centre-north area of the image looks familiar.



And upon further zoom....





Matching the features with the original images confirms that we are looking at the same area. Now, we can search for those mines with a much higher fidelity from our laptops than any Corona satellite could ever provide.

Side note: The Corona satellites actually had to shoot their camera film back to earth where it was supposed to be caught in mid-air by a flying aircraft. Of course, when that didn't work, which was often, Corona photos were sometimes found by Peruvian farmers.

While the original image is quite grainy, we can identify with modern imagery what exactly they were looking at in the early 60s. All evidence, including photos uploaded of the area by social media users, suggests that these mines are now inactive, if any of them were mines to begin with. It is important to remember, though, that mines don't move and during the Cold War, the US invested massive resources into identifying and locating them. Much of this information is now available to everyone. This geolocation exercise uses just one document of the many available from the CIA CREST database concerning Soviet uranium mines. Some include precise coordinates, while others don't.



For some researchers, the CREST database might be more relevant today than they could have ever imagined.

Nerd Note: In the original document, TALENT and KEYHOLE are mentioned. TALENT refers to aerial reconnaissance, while KEYHOLE refers to satellite imagery. Likewise, you may have noticed the TOP SECRET CHESS RUFF heading. CHESS is code for U-2 missions, while RUFF is code for Corona satellite missions.